WEATHER OF NORTH AMERICA AND ADJACENT OCEANS 551.506 (261.1) NORTH ATLANTIC OCEAN

By F. A. Young

The following table shows the average sea-level pressure for the month at a number of land stations on the coast and islands of the North Atlantic. The readings are for 8 a. m., 75th meridian time, and the departures are only approximate, as the normals were taken from the Pilot Chart and are based on Greenwich mean noon observations, which correspond to those taken at 7 a. m., 75th meridian time.

Station .	Average pressure	Depar- ture	
St. Johns, Newfoundland Nantucket Hatteras Key West New Orleans Swan Island Turks Island Bermuda Horta, Azores Lerwick, Shetland Islands Valencia, Ireland	30, 05 30, 13 30, 07 30, 19 29, 88 20, 97 30, 12 30, 22 29, 91 29, 95	Inches -0.0;	

At Horta the barometric readings ranged from 29.98 inches on the 1st and 7th to 30.50 inches on the 19th, and at Lerwick from 29.11 inches on the 2d to 30.46 inches on the 12th.

November, taken as a whole, was an unusually stormy month on the North Atlantic, especially over the middle and eastern sections of the steamer lanes, where winds of gale force were reported on from six to nine days, which is considerably in excess of the normals as shown on the Pilot Chart. There were also disturbances of tropical origin, described elsewhere in the Review.

Fog was exceptionally rare over the northern division of the ocean, the greatest frequency occurring in the 5-degree square between the 40th and 45th parallels and the 45th and 50th meridians, where it was reported on five days. Fog was reported on four days, however, in the western part of the Gulf of Mexico, which is unusual for that locality, where it is ordinarily rare.

On the 1st and 2d a fairly well-developed disturbance covered a portion of the eastern section of the steamer lanes; this moved rapidly eastward and on the 2d covered the North Sea. At the time of observation on both the 1st and 2d westerly winds of force 7 to 8 were encountered by vessels in the southerly quadrants.

On the 3d there was an area of low pressure in the vicinity of Nova Scotia that traveled northeastward and on the 5th was off the north coast of Newfoundland. On the 3d and 4th westerly to northwesterly gales prevailed over the region between the Bermudas and Newfoundland and on the 4th and 5th winds of gale force were reported by vessels in widely scattered positions.

On the 7th there was a well-developed LOW central about 300 miles north of the Azores that traveled northward, and on the 8th the center was near 50° N. and 30° W.; it then curved sharply toward the east and on the 10th was over the region between the 20th meridian and the coast of Ireland.

Charts VIII to XIII show the conditions from the 9th to 14th, inclusive, when a tropical disturbance prevailed in southern waters, while during the same period the middle and eastern sections of the steamer lanes were swept by exceptionally severe gales of extra-tropical

On the 8th strong westerly gales prevailed in the Gulf of St. Lawrence, although it was impossible to plot the positions of this disturbance, due to lack of observations.

On the 9th, as shown on Chart VIII, abnormally high pressure prevailed off the New England coast with the crest near Portland, Me. Vessels between the 40th and 45th parallels and the 55th and 60th meridians reported northwesterly gales accompanied by comparatively high

On the 15th a well-developed disturbance of limited extent was central near 50° N., 45° W.; this moved rapidly eastward and by the 16th the center had reached a position near 50° N., 30° W. A number of vessels in the vicinity of this LOW encountered moderate to strong gales; the storm area on the 15th extended as far south as the 35th meridian and on the 16th extended over the region between the 30th meridian and coast of northern Europe.

On the 16th there was a comparatively slight depression central about midway between Bermuda and Nantucket; this developed rapidly as it moved northeastward along the coast, being in the vicinity of Newfoundland on the 17th and 18th. It reached its greatest intensity on the 17th, the storm area on that date covering the region between the 35th and 45th parallels and 40th

meridian and American coast.

From the 19th to 21st moderate weather was the rule over the ocean with the exception of a slight disturbance on the 19th and 20th in the vicinity of the Straits of Gibraltar, and a second of like character on the 20th and 21st in the region between the 40th and 45th parallels and the 50th and 55th meridians. There was also a shallow depression on the 21st in the Gulf of Mexico that afterwards developed into a severe disturbance as it moved northeastward along the American coast, reaching its greatest intensity on the 23d, when moderate to strong gales were encountered between the 25th and 50th parallels and 60th and 75th meridians.

On the 24th there was a Low over the eastern section of the steamer lanes; it moved slowly eastward, gradually increasing in intensity until the 28th, when the maximum was reached, and from the 26th until the end of the month violent storms were encountered by vessels between the 40th meridian and the European coast.

On the 25th and 26th abnormally high pressure was reported by land stations on the north coast of the Gulf of Mexico, while on the former date the pressure at Swan Island was practically normal, and on the latter slightly above. The steep pressure gradient was responsible for strong northerly winds in the intermediate territory.

On the 25th a shallow depression was central near 33° N., 52° W.; it deepened somewhat on its northward track, the center on the 26th being near St. Johns, Newfoundland.

On the 29th there was a Low between Hatteras and New York, which increased in intensity rapidly during the next 24 hours, the center on the 30th being near Halifax, Nova Scotia. Beginning on the afternoon of the 29th and extending until the 30th, severe northwesterly gales prevailed over a limited area between the 35th and 40th parallels and 45th and 50th meridians.

Storm logs from vessels that encountered severe weather during the month will be found in the accompanying table, although lack of space prevents giving more than a small fraction of all reports received.

Table of ocean gales and storms

Vessel			Position at time of lowest barometer		Gale	Time of	Gale	Lowest barome-	Direc- tion of wind	f and force of wind at	tion of	Highest force of	Shifts of wind
	From-	То—	Latitude	Longitude	began	barometer	ended	ter (ins.)	when gale began	time of lowest barometer	when gale ended	wind and direction	near time of low- est barometer
North Atlantic Ocean			. ,	. ,									
Republic, Am. S. S	England Pensacola Christiania Antwerp Norfolk Havre	New York	51 00 N. 36 10 N. 53 44 N. 42 16 N. 46 31 N. 49 30 N.	18 10 W. 70 03 W. 31 48 W. 24 11 W.	1st 3d 5th 7th 7th	2 a., 3d Noon, 5th. 4 p., 7th 4 a., 8th	5th 8th	29.34 29.59	8 NW 8 SE NW E	W8W NW., 10 SSE., 9 SW., 8 NW., 8 WNW., 9.	ł W	_,9 NW., 10 SSE., 10 NW., 9 NW., 12 WNW., 11	S-WSW-W. NW-WNW. SSE-SW-W. SE-NW. Steady NW. SSW-WNW.
Can. Scottish, Br. S. S. Louisiana, Am. S. S. Noorderdijk, Du. S. S. Bayano, Br. S. S. Verentis, Br. S. S. Regins, Br. S. S. Adriatic, Br. S. S. Wieldrecht, Du. S. S. Independence Hall, Am. S. S.	Colon	Quebec_es	49 00 N. 21 38 N. 29 16 N. 32 13 N. 50 41 N. 55 56 N. 48 53 N. 48 30 N. 45 45 N.	67 17 W. 76 50 W. 67 50 W. 63 56 W. 31 00 W. 32 14 W. 32 40 W. 28 50 W. 40 35 W.	8th 9th 11th 10th 12th 12th 12th 12th 14th	7 p., 9th 6 p., 11th 2 p., 13th 8 a., 12th 4 a., 13th 6 a., 12th 11 a., 12th	8th	29. 46 29. 50 29. 66 29. 71 28. 33 29. 10 28. 70 29. 08 29. 30	W.NE.ESE.S.WNW.SSE.SW.WSW.	W, 9 NNE., 9 NE., 7 S NW., 7 NW., 9 SW., 12 S., 11	NW	SW., 10 -, 11 NNE., 9 N, 10 -, 12 NW., 10 -, 12 SW., 12 SW., 12	W-SW-WNW. Steady NNE. N-NE-E. S-W-NW-N. NW-W-SW. SSE-NE-NW. SW-NW. S-SW.
Cockaponset, Am. S. S. River Delaware, Br.	Galveston Gibraltar	Havre New York	48 05 N. 34 22 N.	31 32 W. 65 10 W.	15th 16th	4 a., 16th 1 a., 16th	16th 19th	29. 56 29. 62	88W	S., 10 S., 6	S	8., 11 8W., 9	8-W-NNW.
S. S. Stanley, Am. S. S. Pres. Harding, Am.S.S. Rathlin Head, Br. S. S. Texas, Dan. S. S.	London	New York New York Hamburg Aalborg,	37 30 N. 44 12 N. 35 53 N. 40 40 N.	65 30 W. 47 56 W. 1 25 W. 51 10 W.	17th 17th 19th 20th	2 a., 17th 4 p., 17th Noon, 19th 4 a., 20th	17th 18th 21st 21st	29. 72 29. 33 29. 98 29. 63	NW SSE NE NNE	NW., 10 8., 10 ENE., 9 NE., 9	NW WSW ENE N	NW., 10 8., 10 ENE., 9 —, 10	Steady NW. S-SW. Steady ENE.
W. C. Teagle, Am. S. S. Santa Veronica, Am.	New York Mobile	Denmark. Tampico New York	28 22 N. 32 28 N.	92 20 W. 77 50 W.	20th 22d	Mid., 20th	21st 22d	29. 81 29. 39	N 8E	N., 6 SW.,	N NW	N., 8. SW., 10	Steady N. SW-NW.
S. S. Steel Ranger, Am. S. S. Amasia, Germ. S. S. Westerdijk, Du. S. S. Crofton Hall, Am. S. S. Novian, Br. S. S.	Port Said Colon Rotterdam London London	Boston Jacksonville. New York New York Boston	39 12 N. 19 08 N. 48 32 N. 42 45 N. 49 47 N.	65 20 W. 85 00 W. 30 37 W. 15 00 W. 15 59 W.	22d 25th 24th 24th 26th	I 6 D., 25ID	23d 26th 25th 27th 26th	29, 38 29, 94 29, 74 29, 25 29, 22	SE NNE. NNW. SSW WNW.	SE., 10 N., NNW., 7. N., NE., 12	NW NE WSW NE	SE., 10 —, 9 N., 9 N., 9 NE., 12	SE-W-NW. NNW-N. N-WNW-NW. WNW-ENE-
Rochambeau, Fr. S. S. West Cheswald, Am.	Havre London	New York New Orleans	48 30 N.	40 30 W. 52 30 W.	27th 25th	3 p., 27th 2 a., 25th	28th 25th	29. 36 29. 91	W	WNW.,	WNW.	_, 12 NNW., 8	NE. WSW-W. NW-NNW.
S. S. Blair, Am. S. S. Zarembo, Am. S. S	Alexandria Bordeaux	Boston New York	28 52 N. 35 50 N.	69 04 W.	29th	4 p., 29th 9 p., 29th	30th Dec. 1	29. 59 29. 60	8W W	SW., 7 W., 9	NW	NW., 12 W., 9	SW-WSW. WNW-NW,
North Pacific Ocean													
Broad Arrow, Am.	Shanghai	San Pedro	39 29 N.	165 10 E.	Oct. 30	Noon, 3d	Nov. 4	29. 13	WNW.	8E., 10	wsw	SE., 10	Variable.
Pres. McKinley, Am. S. S.	Victoria	Yokohama	50 26 N.	177 21 E.	Oct. 31	12 mid	Nov. 1	29. 55	N	N., 6	NNW_	N., 8	N-NNW.
F. J. Luckenbach, Am. S S.	San Pedrodododo	Galveston Yokohama do Jebisu,	14 50 N. 34 48 N. 34 40 N. 32 44 N.	97 19 W. 159 50 E. 151 45 E. 157 53 E.	Nov. 2 2d 5th 2d	3p., 2d 4a., 3d 11p., 5th 2a., 3d	3d 3d 6th 3d	29. 82 29. 28 29. 75 29. 41	S S S	S., 9 S., 10 S., 10	W W WNW	NE., 8 S., 9 S., 10 S., 10	E-ENE S-SW-W. S-W-NNW. S-WNW.
Do Do Empress of Asia, Br. S. S.	Yokohama	Japan. do Vancouver	36 47 N. 40 10 N. 40 47 N.	151 10 E. 139 E. 151 51 E.	5th 9th 3d	8 p 8 p 8a., 3d	5th 9th 4th	29. 76 29. 44 29. 11	88W 88W NW	88W., 10 88W., 9 NW., 10	W 8W W	88W., 10 88W., 9 W., 11	SSW-NW. SSW-SW. NW-WNW.
Harold Dollar, Br. S. S. Iyo Maru, Jap. S. S.	Shanghai Yokohama	San Fran- cisco. Victoria	41 50 N. 46 N.	153 50 E. 167 E.	3d	4a., 3d 8 p., 3d	4th	27. 84 28. 18	SE	8E., 12 E., 7	w	SE., 12	S-SE-SW-NW. NNW-WSW.
Meiko Maru, Jap. 8. 8.	Meike, Japan.	Portland, Oreg.	48 27 N.	132 13 W.	4th	Noon, 6th_	7th	29. 30	w	NW., 8	NW	NW., 8	NW.
Pres. Garfield, Am. 8.8.	Honolulu	Kobe	33 36 N.	1	10th	, 10th	12th	29.64	SW	8W., 1	W WNW.	SW., 8 WNW., 11	sw-w. w-nw.
West Jessup, Am. S. S. West Niger, Am. S. S. Niagara, Br. S. S. Yayoi Maru, Jap. S. S.	Portland Davao, P. I. Sydney, Aus. Wakamatsu,	Nagoya, Japan. Portland Vancouver Astoria	42 56 N. 42 43 N. 47 30 N. 50 N.	714 33 E. 126 29 W. 146 40 W.	13th 13th 15th	1a., 11th 6a., 13th 2 p Noon, 15th	14th 13th	28. 60 28. 97 29. 90 28. 68	WSW SE	WSW., 7 SE., 9 S., 6	WNW. SE. ESE	WNW., 9. SE., 10 WNW., 10	WSW-N. Steady.
Tascalusa, Br. S. S	Japan. Hongkong	San Fran-	45 22 N.	148 15 W.	15th	3 p., 16th	17th	28. 70	SSE	ENE., 7	sw	W , 10	Variable
Can Importer, Br.S.S.	Brisbane	vancouver	48 N.	126 30 W.	17tb	8 p., 17th	18th	29. 30	8E	SE., 9	8	-, 10	SE-S.
Hakata Maru, Jap. S. S.	Yokohama	Seattle	49 21 N	129 50 W.	19th	11a, 19th	20th	29. 35	8E	SE., 9	sw	— , 10	SE-SW
Kaga Maru, Jap. 8. 8. George Washington,	Victoria Balboa	Yokohama San Pedro	39 45 N. 16 16 N.	147 E. 94 45 W.	21st 22d	Noon, 21st 4 p	22d 22d	29. 35 29. 80	SE	S., 7 N., 9	W	W., 9 N., 9	
Nor. M. S. Pres. Madison, Am. S. S.	Yokohama	Seattle	44 20 N.	160 E.	22d	6a., 22d	24th	28. 44	sw	W., 6	w	W., 9	sw-w.
Africa Maru, Jap. S. S. Tejon, Am. S. S.	Jebisu,	Victoria San Pedro	48 36 N. 41 23 N.	179 16 E. 153 38 W.	28d 25th	4a., 25th 3 p	25th 25th	28. 83 28. 81	wsw s	NW., 9 8	NW	W., 9	s-wsw.
West Himrod, Am.	Japan. Kobe	Seattle	50 10 N.	152 40 W.	25th	2a., 26th	26th	28. 04		SW., 10		SW., 10	
S. S. Can. Prospector, Br. S. S. Edmore, Am. S. S	Vancouver Cebu, P. I	Boston	13 49 N. 47 03 N.	95 44 W. 175 20 E.	28th 29th	3a 2a	28th 29th	29. 91 28. 92	E	NNE., 8 ENE., 9	N	NNE., 8 ENE., 9	E-NE-N.
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